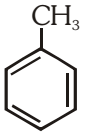
CLASSIFICATION & NOMENCLATURE

BEGINNER'S BOX–1

1. How many 1°, 2° & 3° H atoms are present in  [Toluene] respectively :-

(1) 3, 0, 5 (2) 3, 5, 0 (3) 4, 3, 0 (4) 0, 5, 3

2. What is hybridisation of each carbon atom in following compound

$HC \equiv C - CH = CH - CH_3$

(1) sp, sp^2, sp^2, sp^2, sp^3 (2) sp, sp, sp^2, sp^2, sp^3

(3) sp, sp, sp^2, sp^3, sp^3 (4) sp, sp^2, sp^2, sp^3, sp^3

3. Which one is not correct for a homologous series –

(1) All members have a general formula

(2) All members have same chemical properties

(3) All members have same physical properties

(4) All members have same functional group

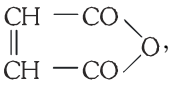
BEGINNER'S BOX-2

1. How many carbon atom are present in third homologue of methyl ether.

(1) 1 (2) 2 (3) 3 (4) 4

2. Which of the following is not a hetero cyclic compound

(1) Thiophene (2) Furane (3) Benzene (4) Pyridine

3. In structure  , how many hetero atoms are present ?

(1) 1 (2) 2 (3) 3 (4) 4

BEGINNER'S BOX-3

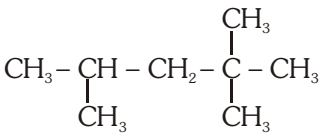
1. Which of the followings is incorrect name :-

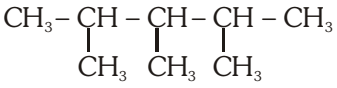
(1) Isopropyl (2) Ter. butyl (3) Neo butyl (4) Neo pentyl

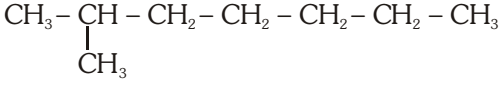
2. Which of the followings is secondary radical :-

(1) $CH_2=CH-$ (2) $(CH_3)_3C-$ (3) C_6H_5- (4) $CH_3-(CH_2)_2-CH_2-$

3. Which of the followings is isooctane :-

(1) 

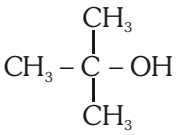
(2) 

(3) 

(4) None

BEGINNER'S BOX-4

1. Common name of given compound is :-



(1) Neobutyl alcohol (2) Isobutyl alcohol
(3) Tertiary butyl alcohol (4) Secondary butyl alcohol

2. Which of the following is Crotonic acid ?
(1) $CH_2 = CH - COOH$ (2) $CH_3 - CH = CH - CHO$
(3) $CH_3 - CH_2 - CH_2 - COOH$ (4) $CH_3 - CH = CH - COOH$

3. What is derived name of Neopentyl alcohol :-
(1) Isopropyl carbinol (2) n-Butyl carbinol
(3) Tertiary butyl carbinol (4) Ethyl methyl carbinol

Format for IUPAC name :

s – prefix	+	p – prefix	+	word root	+	p – suffix	+	s – suffix
Substituents with locants		cyclo		Alk word according to carbon in parent C chain		– ane – ene – yne		According to main functional group given in priority table

(a) Locant : Locants are separated by (,) comma.

- Locants and alphabets are separated by hyphen (–). [2, 3 – dimethyl pentane]
- di, tri, iso, neo and cyclo are neither separated by comma nor by hyphen

(b) Prefix :- According to substituents .
Prefix (es) are written in alphabetical order before root word.

Prefix ← 1° or p – prefix
2° or sec. – prefix

Cyclo is 1° prefix and used for cyclic compound.
2° prefix is used for substituents and written before 1° prefix.

For acyclic compounds : 2° prefix + Root word + 1° suffix + 2° suffix.

Substituents	Prefix
— R	Alkyl group
— X (F, Cl, Br, I)	Halo
— O — N=O	Nitrite
— CH_2OH	Hydroxy methyl
— NHC_2H_5	Ethyl amino

Substituents	Prefix
— OR	Alkoxy
— $N(=O)-O$	Nitro
— N = O	Nitroso
— CH_2Cl	Chloro methyl

(c) Word root : According to number of carbons in parent C–chain.

Number of carbons	Root word
1	Meth
2	Eth
3	Prop
4	But
5	Pent

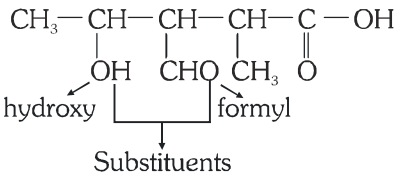
Number of carbons	Root word
6	Hex
7	Hept
8	Oct
9	Non
10	Dec

Number of carbons	Root word
11	Undec
12	dodec
13	tridec

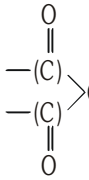
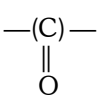
(d) Primary suffix :- According to saturation and unsaturation.

C — C ⟶ ane C=C ⟶ ene C≡C ⟶ yne

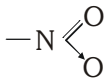
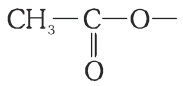
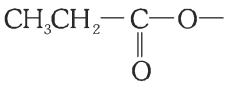
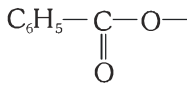
(e) Secondary Suffix :- According to senior most of F. G.



3-Formyl-4-hydroxy-2-methyl pentanoic acid

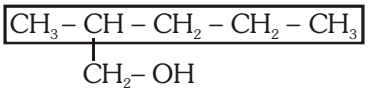
S. NO.	Functional group	Prefix	Suffix
1.	— (C) OOH (carboxylic acid)	×	oic acid
	— COOH	carboxy	carboxylic acid
2.	— SO_3H (sulphonic acid)	sulpho	sulphonic acid
3.	 (anhydride)	×	oic anhydride
4.	— (C)OOR (ester)	×	alkyl ------ oate
	— COOR	alkoxy carbonyl or carbalkoxy	alkyl ----- carboxylate
5.	— (C)OX (acid halide)	×	oyl halide
	— COX	halo formyl	carbonyl halide
6.	— (C)ONH_2 (amide)	×	amide
	— $CONH_2$	carbamoyl	carboxamide
7.	— (C)N (cyanide)	×	Nitrile
	— CN	cyano	carbonitrile
8.	— N ⩲ C (isocyanide)	isocyano/carbyl amino	isonitrile/carbyl amine
9.	— (C)HO (aldehyde)	oxo	al
	— CHO	formyl	carbaldehyde
10.	 (Ketone)	keto/oxo	one
11.	— OH (alcohol)	hydroxy	ol
12.	— SH (thio alcohol)	mercapto	thiol
13.	— NH_2 (amine)	amino	amine

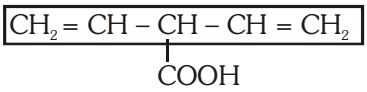
Note : (C) atom written in brackets means that it has been included in the parent chain.

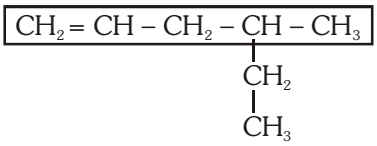
SUBSTITUENTS	PREFIX	SUBSTITUENTS	PREFIX
— R	alkyl	— X	halo
— NH_2	amino		nitro
—O—N=O	nitrito	— N = O	nitroso
— OCH_2CH_3	ethoxy	— CH_2 – OH	hydroxy methyl
— CH_2—Cl	chloro methyl	— NH – CH_3	methyl amino
— S —	thio		
	acetoxy/ethanoyloxy		propanoyloxy
	benzoyloxy	–OR	Alkoxy
		$-OC_6H_5$	Phenoxy

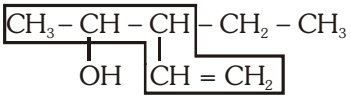
BEGINNER'S BOX-5

1. Which of the following selected chain is correct :-

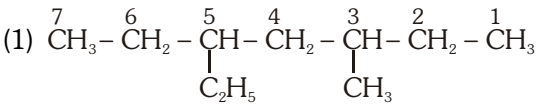
(1) 

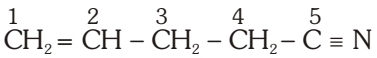
(2) 

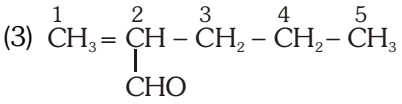
(3) 

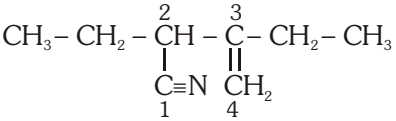
(4) 

2. Which of the following has correct numbering according IUPAC :-

(1) 

(2) 

(3) 

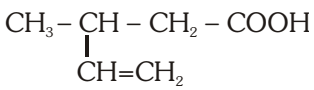
(4) 

3. Which of the following functional group has highest priority according to priority table :-

(1) –COOR (2) $-CONH_2$ (3) –CHO (4) –OH

BEGINNER'S BOX-6

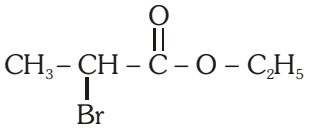
1. Correct IUPAC name of compound is :-



(1) 3-Ethenyl butanoic acid (2) 3-Ethynyl butanoic acid

(3) 3-Methyl but-4-enoic acid (4) 3-Methyl pent-4-enoic acid

2. Correct IUPAC name of compound is :-



(1) 2-Bromo-1-ethyl propanoate (2) 1-Ethyl-2-bromopropanoate

(3) Ethyl-2-bromopropanoate (4) Ethyl-3-bromo propanoate

3. IUPAC name of $CH_3-\overset{O}{\overset{\|}{C}}-O-\overset{O}{\overset{\|}{C}}-CH_3$ is :-

(1) Acetic anhydride
(2) Methanoic anhydride
(3) Ethanoic methanoic anhydride
(4) Ethanoic anhydride

ANSWER KEY

BEGINNER'S BOX-1	**Que.**	1	2	3
	Ans.	**2**	**2**	**3**
BEGINNER'S BOX-2	**Que.**	1	2	3
	Ans.	**4**	**3**	**1**
BEGINNER'S BOX-3	**Que.**	1	2	3
	Ans.	**3**	**3**	**1**
BEGINNER'S BOX-4	**Que.**	1	2	3
	Ans.	**3**	**4**	**3**
BEGINNER'S BOX-5	**Que.**	1	2	3
	Ans.	**4**	**4**	**1**
BEGINNER'S BOX-6	**Que.**	1	2	3
	Ans.	**4**	**3**	**4**

EXERCISE-I (Conceptual Questions)

CLASSIFICATION

1. The hybrid state of C-atoms which are attached to a single bond with each other in the following structure are : $CH_2=CH-C\equiv CH$

(1) sp^2, sp (2) sp^3, sp
(3) sp^2, sp^2 (4) sp^2, sp^3

2. The third member of the homologous series of aliphatic aldehydes has the structure :-

(1) CH_3CH_2CHO (2) $CH_3(CH_2)_2CHO$
(3) $CH_3COCH_2CH_3$ (4) CH_3COCH_3

3. Molecular formula $C_4H_8O_2$ represents :-

(1) An acid only
(2) An ester only
(3) An alcohol only
(4) An acid and an ester also

4. The higher homologue of dimethylamine ($CH_3-NH-CH_3$) has the structure :-

(1) $CH_3-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\underset{|}{\overset{|}{N}}}}-CH_3$

(2) $CH_3-CH_2-CH_2-NH_2$
(3) $CH_3-NH-CH_2-CH_3$
(4) $CH_3-\underset{\displaystyle NH_2}{\underset{|}{CH}}-CH_3$

5. The third member of the family of alkenynes has the molecular formula :-

(1) C_6H_6 (2) C_5H_6
(3) C_6H_8 (4) C_4H_4

6. The number of olefinic bonds in the given compound is/are :-

$$CH_2=CH-\underset{\displaystyle O}{\overset{\displaystyle \|}{C}}-CH=CH-C\equiv N$$

(1) 2 (2) 3
(3) 1 (4) 4

7. The number of acetylinilic bonds in the given compound is/are :

$$HC\equiv C-\underset{\displaystyle O}{\overset{\displaystyle \|}{C}}-CH=CH-C\equiv N$$

(1) 2 (2) 3
(3) 1 (4) 4

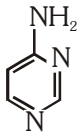
8. The number of C-atoms in second member of an ester is/are :

(1) 2 (2) 3
(3) 4 (4) 5

9. Which of the following is an example of symmetrical or simple ether :

(1) $CH_3-\underset{\displaystyle O}{\overset{\displaystyle \|}{C}}-CH_3$
(2) $CH_3-O-CH_2-CH_3$
(3) $CH_3-CH_2-O-CH_2-CH_2-CH_3$
(4) $CH_3-\underset{\displaystyle CH_3}{\underset{|}{CH}}-O-\underset{\displaystyle CH_3}{\underset{|}{CH}}-CH_3$

10. The number of hetero atoms present in the following compound is/are :



(1) 2 (2) 3
(3) 1 (4) 4

11. The minimum number of carbon atoms in an alkane having four primary carbon atoms are :-

(1) 4 (2) 8
(3) 5 (4) 6

12. Which of the following compound has sp-hybridised carbon atom :-

(1) CH_3COOH (2) CH_3COCH_3
(3) CH_3CH_2CN (4) $CH_2=CH-CH=CH_2$

13. In compound $HC\equiv C-CH_2-CH=CH-CH_3$, the C_2-C_3 bond is the type of :-

(1) sp – sp^2 (2) sp^3 – sp^3
(3) sp – sp^3 (4) sp^2 – sp^2

14. Which of the following represents the given mode of hybridization sp^2-sp^2-sp-sp from left to right :-

(1) $H_2C=CH-C\equiv CH$ (2) $HC\equiv C-C\equiv CH$
(3) $H_2C=CH-CH=CH_2$ (4) $H_2C=C=C=CH_2$

15. Which of the following pair of compounds are homologues :-

(1) 1–Propanol & 2–Propanol
(2) Ethanol & Propanal
(3) Acetone & Acetaldehyde
(4) Acetic acid & Butyric acid

16. Which of the following homologous series has incorrect general formula :-

(1) Alkyne C_nH_{2n-2}
(2) Alkanol $C_nH_{2n+2}O$
(3) Alkanal $C_nH_{2n+1}O$
(4) Carboxylic acid $C_nH_{2n}O_2$

17. The Cl – C – Cl bond angle in 1,1,2,2 – tetrachloro ethene and tetrachloro methane respectively are:-

(1) 120° and 109.5° (2) 90° and 109.5°
(3) 109.5° and 90° (4) 109.5° and 120°

18. Minimum number of carbon atoms present in an ester are :-

(1) 2 (2) 1 (3) 4 (4) 3

19. Which of the following has general formula C_nH_{2n}

(1) Only Alkyne
(2) Only Alkane
(3) Aromatic hydrocarbon
(4) Alkene & cyclic Alkane

20. Which compound has alkyne group

(1) C_7H_{14} (2) $C_{10}H_{22}$
(3) C_9H_{16} (4) $C_{16}H_{32}$

COMMON AND DERIVED NAME

21. Which of the following are tertiary radicals :–

(a) $CH_3-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-$ (b) $CH_3-\underset{\displaystyle CH_3}{\overset{|}{CH}}-$

(c) $CH_3-\underset{}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-C_2H_5$ (d) $CH_3-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-CH_2-$

(1) a and b (2) b and c
(3) a and c (4) b and d

22. Common name of the given compound is :-

$$CH_3-\overset{\displaystyle O}{\overset{\|}{C}}-O-CH=CH_2$$

(1) vinyl acetate (2) acryl acetate
(3) methyl acrylate (4) Vinyl ethanoate

23. A primary amine has amino group ($-NH_2$) attached to:-

(1) A primary carbon atom only
(2) A secondary carbon atom only
(3) A tertiary carbon atom only
(4) A primary, secondary or tertiary carbon atom

24. Which of the following are secondary radicals :–

(a) $CH_3-\overset{|}{CH}-C_2H_5$ (b) $CH_2=\overset{|}{C}-CH_3$

(c) $CH_2=CH-$ (d) $(CH_3)_2CH-$

(1) a, b, c (2) a, d, c
(3) b, c, d (4) a, b, d

25. Examine the following structures :–

(A) $CH_3-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-OH$; (B) $CH_3-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-NH_2$

Which of the following statement is correct :-

(1) A is tertiary alcohol while B is tertiary amine
(2) A is primary alcohol while B is primary amine
(3) A is tertiary alcohol while B is primary amine
(4) A is primary alcohol while B is tertiary amine

26. Which of the following is not a correct match

(1) $H_3C-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-CH_2-$ ⇒Neopentyl

(2) $H_3C-\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-$ ⇒ Neobutyl

(3) $HC\equiv C-CH_2-$ ⇒ Propargyl

(4) $CH_2=CH-CH_2-$ ⇒ Allyl

IUPAC NAME

27. The IUPAC name for isobutyl chloride is :-

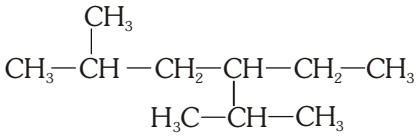
(1) 2–Methyl-2–chloro butane
(2) 2–Chloro–2–methyl butane
(3) 1–Chloro–2–methyl propane
(4) 2–Methyl–3–chloro propane

28. The IUPAC name of given compound is :-

$$CH_3CH=\underset{\displaystyle COOH}{\overset{|}{C}}-CH_2CH_3$$

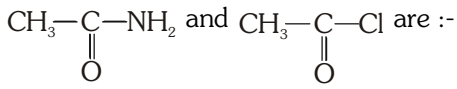
(1) 3–Carboxy–2–pentene
(2) 2–Ethylidene butanoic acid
(3) 2–Ethyl–2–butenoic acid
(4) 3–Ethyl–2–buten–4–oic acid

29. The IUPAC name for the given structure is :-



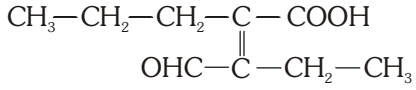
(1) 3–Isopropyl–4–methylhexane
(2) 4–Isopropyl–3–methylhexane
(3) 3–Ethyl–2,5–dimethylhexane
(4) 2–Ethyl–3–isopropylpentane

30. The IUPAC name for

 are :-

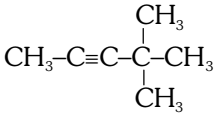
(1) 1–Amino–1–oxo ethane, 1–chloro ethanal
(2) 1–Amino ethanal, acetoyl chloride
(3) 1–Oxoethanamine, ethanoyl chloride
(4) Ethanamide, Ethanoyl chloride

31. The number of carbon atoms in the principle chain of the given compound are :-



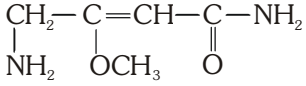
(1) 7 (2) 5
(3) 4 (4) 6

32. The IUPAC name of given compound is :-

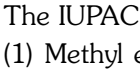


(1) Methyl tertiarybutyl acetylene
(2) t–Butyl propyne
(3) 4,4–Dimethyl–2–pentyne
(4) 1,3,3,3–Tetramethyl ethyne

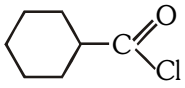
33. The IUPAC name of the compound is :-



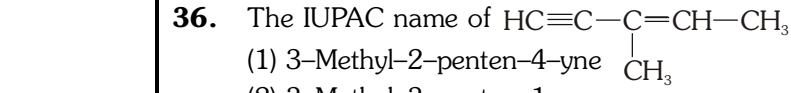
(1) 4–Amino-2–methoxy–1–amino–2–butene
(2) 4–Amino–3–methoxy–2–butenamide
(3) 2–Methoxy–1,4–diamino–2–butenal
(4) 1–Amino–2–methoxy–3–amino propene

34. The IUPAC name of  is :-
(1) Methyl ethyl amine
(2) 1–methyl amino ethane
(3) N–methyl ethan amine
(4) N–ethyl methan amine

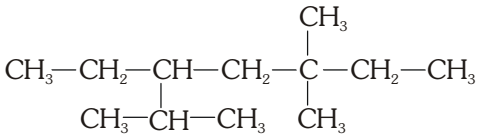
35. The IUPAC name for the compound is :-



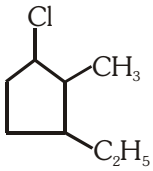
(1) Cyclohexanoyl chloride
(2) Cyclohexane carbonyl chloride
(3) 1–Chloro cyclohexanal
(4) Chloro cyclohexyl methanal

36. The IUPAC name of  is
(1) 3–Methyl–2–penten–4–yne
(2) 3–Methyl–3–penten–1–yne
(3) 3–Methyl–4–pentyn–1–ene
(4) 3–Methyl pentenyne

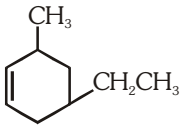
37. The IUPAC name of the structure is :-



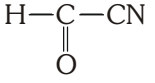
(1) 3–Isopropyl–5,5–dimethyl heptane
(2) 5–Ethyl–3,3,6–trimethyl heptane
(3) 3,3–Dimethyl–5–isopropyl heptane
(4) 3–Ethyl–2,5,5–trimethyl heptane

38.  has the IUPAC name :-

(1) 3–Chloro–1–ethyl–2–methyl cyclopentane
(2) 1–Chloro–3–ethyl–2–methyl cyclopentane
(3) 4–Chloro–1–ethyl–5–methyl cyclopentane
(4) All are correct

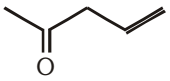
39. The IUPAC name of  is :-

(1) 1–Methyl–5–ethyl cyclohex–2–ene
(2) 5–Ethyl–3–methyl cyclohex–1–ene
(3) 4–Ethyl–6–methyl cyclohex–1–ene
(4) 1–Ethyl–5–methyl cyclohex–3–ene

40.  in IUPAC called :-

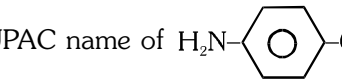
(1) Cyano methanal
(2) 2–Oxo ethane nitrile
(3) Cyano ethanal
(4) Formonitrile

41. The IUPAC name for the compound is :-



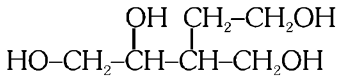
(1) 2-Acetyl prop-1-ene (2) Pent-1-en-4-one
(3) Pent-4-en-2-one (4) Formyl propene

42. Which is incorrect IUPAC name :-
(1) 3–Pentyne
(2) 3–Methyl–2–butanone
(3) 2–Ethyl–3–methyl–1–butene
(4) 3–Ethyl-2-methyl pentane

43. The IUPAC name of  is :-

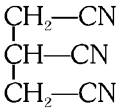
(1) 1–Methoxy–4–amino benzene
(2) Aminophenyl methyl ether
(3) 4–Methoxy aniline
(4) None of the above

44. The IUPAC name of the given compound is :-



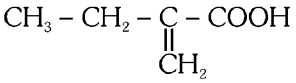
(1) 3–Hydroxymethyl pentane–1,4,5–triol
(2) 3–Hydroxyethyl butane–1,2,4–triol
(3) 4–Hydroxyethyl–1,2,4–trihydroxy butane
(4) 3–Hydroxymethyl pentane–1,2,5–triol

45. The IUPAC name of the given compound is :-

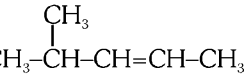
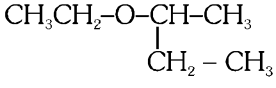


(1) 1,2,3–Tricarbonitrile propane
(2) Propane–1,1,1–tricarbylamine
(3) Propane–1,2,3–tricarbonitrile
(4) 3–Cyano pentane dicyanide

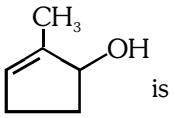
46. Number of carbon atoms in the principle carbon chain in the given compound are :-



(1) 4 (2) 3
(3) 2 (4) 5

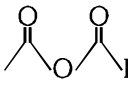
47. Wrong IUPAC name is :-
(1) $CH_3CH_2CONH_2$ Propanamide
(2) $CH_3CH_2COOCH_3$ Methyl propanoate
(3)  2–Methyl pent–3– ene
(4)  2–Ethoxy butane

48. The IUPAC name of the compound



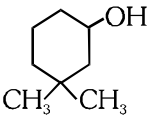
is

(1) 2–Methyl cyclopent–1–en–2–ol
(2) 3–Methyl cyclopent–2–en–1–ol
(3) 2–Methyl cyclopent–2–en–1–ol
(4) 3–Methyl cyclopent–1–en–2–ol

49. The IUPAC name of  is :-

(1) Acetic anhydride
(2) Formyl ethanoate
(3) Butane– 2, 4–dione
(4) Ethanoic methanoic anhydride

50. The IUPAC name of given compound is :

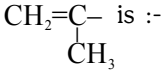


(1) 3,3–Dimethyl–1–hydroxy cyclohexane
(2) 1,1–Dimethyl–3–hydroxy cyclohexane
(3) 3,3–Dimethyl–1–cyclohexanol
(4) 1,1–Dimethyl–3–cyclohexanol

51. IUPAC name of $(CH_3)_2CHCH(CH_3)_2$ is :-
(1) 2,2–Dimethyl butane (2) 2,3–Dimethyl butane
(3) 2,4–Dimethyl butane (4) 1–Methyl pentane

52. IUPAC name of $CH_2{=}CH{-}CH_2{-}Cl$ is :-
(1) Allyl chloride
(2) 1–Chloro–3–propene
(3) 3–Chloro–1–propene
(4) Vinyl chloride

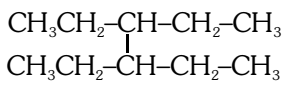
53. The IUPAC name of the following group



(1) Isopropenyl (2) 1–Methylethenyl
(3) 2–Methylethylnyl (4) None of the above

54. $CH_3{-}CH{=}CH{-}C{\equiv}CH$ has IUPAC name :-
(1) Pent–2–en–4–yne
(2) Pent–4–yn–2–ene
(3) Pent–1–yn–3–ene
(4) Pent–3–en–1–yne

55. The IUPAC name of the following compound



(1) 3, 4 – Dimethyl octane
(2) 3–sec pentyl pentane
(3) 3, 4 - Diethyl hexane
(4) 3, 4 – Dimethyl hexane

56. Correct IUPAC name is :-
(1) 3-Methyl-2- ethylpentane
(2) 2-Ethyl- 3-methylpentane
(3) 3–Ethyl– 2-methylpentane
(4) 2-Ethyl- 2-methylpentane

EXERCISE-I — ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	**1**	**1**	**4**	**3**	**3**	**1**	**3**	**2**	**4**	**1**	**3**	**3**	**3**	**1**	**4**
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	**3**	**1**	**1**	**4**	**3**	**3**	**1**	**4**	**4**	**3**	**2**	**3**	**3**	**3**	**4**
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	**2**	**3**	**2**	**3**	**2**	**2**	**4**	**2**	**2**	**2**	**3**	**1**	**3**	**4**	**3**
Que.	46	47	48	49	50	51	52	53	54	55	56				
Ans.	**2**	**3**	**3**	**4**	**3**	**2**	**3**	**2**	**4**	**3**	**3**				

Directions for Assertion & Reason questions

These questions consist of two statements each, printed as Assertion and Reason. While answering these Questions you are required to choose any one of the following four responses.

(A) If both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.

(B) If both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.

(C) If Assertion is True but the Reason is False.

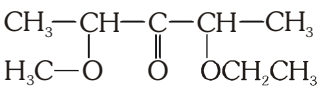
(D) If both Assertion & Reason are false.

1. ***Assertion:–***  is called cyclo hexanenitrile.

Reason :– It contains six carbon atoms in the ring and CN as substituent.

(1) A (2) B (3) C (4) D

2. ***Assertion :–*** The IUPAC name of



is 2–ethoxy–4–methoxy pentan–3–one.

Reason :– Larger substituents are assigned lower locants.

(1) A (2) B (3) C (4) D

3. ***Assertion :–*** The IUPAC name for $HC\equiv C—CH_2—CH=CH_2$ is pent–4–en–1–yne.

Reason :– If there is a choice, a triple bond is always given a lower locant than a double bond.

(1) A (2) B (3) C (4) D

4. ***Assertion :-*** Benzene is a carbocyclic compound.

Reason :- It has three π bonds in the cycle.

(1) A (2) B (3) C (4) D

5. ***Assertion :-*** Number of bond angles of 120° and 109°28' in butenyne are 6 and 2 respectively.

Reason :- It's molecular formula is C_4H_6.

(1) A (2) B (3) C (4) D

6. ***Assertion :–*** Neopentane forms only one mono substituted compound.

Reason :– It has only one type of carbon atoms.

(1) A (2) B (3) C (4) D

7. ***Assertion :–*** $CH_2 = CH - CH = CH_2$ is a planar compuond.

Reason :– It has 9σ bonds and 2 π bonds.

(1) A (2) B (3) C (4) D

8. ***Assertion*** : Acetic acid is an unsaturated compound.

Reason : It has two double bonds.

(1) A (2) B (3) C (4) D

Que.	1	2	3	4	5	6	7	8
Ans.	**4**	**3**	**4**	**2**	**4**	**3**	**2**	**4**